

**TOWN OF LAKEWOOD VILLAGE
FIRE CODE 16-15**

**AN ORDINANCE TO ADOPT THE 2012 INTERNATIONAL
FIRE CODE, WITHIN THE TOWN OF LAKEWOOD
VILLAGE; PROVIDING A SAVINGS/REPEALING CLAUSE,
PROVIDING A PENALTY CLAUSE, PROVIDING A
SEVERABILITY CLAUSE, PROVIDING AN EFFECTIVE
DATE.**

WHEREAS, the Town Council of the Town of Lakewood Village, Texas (“Town Council”) has investigated and determined that it would be advantageous and beneficial to the citizens of the Town of Lakewood Village, Texas to adopt the 2012 Edition of the International Fire Code, save and except the deletions and amendments set forth below.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF LAKEWOOD VILLAGE, TEXAS, THAT:

Section 1: Findings

The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2: Adoption of the 2012 International Fire Code

The International Fire Code, 2012 Edition, copyrighted by the International Code Council, Inc., including all Regular Chapters and Appendix Chapters, save and except the deletions and amendments set forth in Exhibit "A", attached hereto and incorporated herein for all purposes, is hereby adopted as the Fire code for Lakewood Village, prescribing regulations governing the safeguarding of life and property from fire and explosion hazards arising from storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life and property in the occupancy of buildings and premises, or maintenance of Fire systems within Lakewood Village (the "2012 International Fire Code"). The 2012 International Fire Code is made a part of this Ordinance as if fully set forth herein.

Section 3: Repeal

Fire Code 15-16 ordinance is hereby repealed in its entirety.

Section 4: Penalty Clause

A. Violation

A person who knowingly violates any provision of this chapter is guilty of separate offenses for each day during which the violation is continued after notification. Neither allegation nor evidence of a culpable mental state is required for the proof of an offense defined by this ordinance.

B. Fine

Each offense is punishable by a fine of not more than two-thousand (\$2,000) nor less than two-hundred (\$200). The minimum fine established in this paragraph shall be doubled for the second conviction of the same offense within any 24-month period and tripled for the third and subsequent convictions of the same offense within any 24-month period. At no time shall the minimum fine exceed the maximum fine established in this paragraph.

Section 5: Legal Rights

The penal provision imposed under this Ordinance shall not preclude the Town of Lakewood Village from filing suit to enjoin the violation. The Town of Lakewood Village retains all legal rights and remedies available to it pursuant to local, state, and federal law.

Section 6: Severability

A. Unconstitutional or Invalid Section

Should any section, subsection, sentence, clause or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect.

B. Independent Sections

The Town hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and/or phrases be declared unconstitutional or invalid.

Section 7: Estoppel / Waiver

The failure of the Town to enforce any term or condition of this Ordinance shall not constitute a waiver or estoppel or any subsequent violation of this Ordinance.

Section 8: Effective Date

The amendments to this Ordinance shall become effective from and after its date of passage and publication as provided by law.

PASSED AND APPROVED by the Town Council of the Town of Lakewood Village, Texas this the 13th day of October, 2016.

Dr. Mark E. Vargus
Mayor

ATTEST:

Linda Asbell, TRMC
Town Secretary

Exhibit A

Town of Lakewood Village Amendments

2012 International Fire Code

FIRE CODE

Adopted: October 13th, 2016



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CHAPTER 1. SCOPE AND APPLICATION

The following additions, deletions and amendments to the 2012 International Fire Code adopted herein and hereby approved and adopted.

[A] 101 General

[A] 101.1 Title

These regulations shall be known as the *International Fire Code* of the Town of Lakewood Village hereinafter referred to as "this code."

[A] 102 Applicability

[A] 102.4 Application of Other Building Codes

The design and construction of new structures shall comply with the *International Building Code*, this code, and other codes applicable, and any *alterations*, additions, changes in use or changes in structures required by this code, which are within the scope of the *International Building Code*, this code, and other codes as applicable, shall be made in accordance therewith.

[A] 102.7 Referenced Codes and Standards

The codes and standards referenced in this code shall be those that are listed in Chapter 80, and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2.

[A] 102.7.2 Provisions in Referenced Codes and Standards

Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code and any adopted amendments, the provisions of this code and any adopted amendments, as applicable, shall take precedence over the provisions in the referenced code or standard.

[A] 103 Department of Fire Prevention

[A] 103.1 General

The Fire Code shall be enforced by the Lakewood Village Fire Code Official, the Fire Marshal, the Mayor and Mayor pro-Tem of Lakewood Village, and their designees. ~~The department of fire prevention is established within the jurisdiction under the direction of the fire code official. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.~~

[A] 103.2 Appointment

The Lakewood Village Fire Code Official is the Chief Building Inspector, the Deputy Chief Building Inspector and any other persons designated by the Town Council. Fire Marshall shall refer to the Little Elm Fire Marshal or the fire marshal employed by any successor agency which provides

Fire/EMS services to Lakewood Village. All authority granted to the Fire Marshal under this code is likewise granted to the Fire Code Official. The *fire code official* shall be appointed by the chief appointing authority of the jurisdiction; and the *fire code official* shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.

[A] 103.3 Deputies

The Chief of the Fire Department may detail such members of the Fire Department of proper qualification as inspectors as shall from time to time be necessary and each member so assigned shall be authorized to enforce the provisions of this code. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the *fire code official* shall have the authority to appoint a deputy *fire code official*, other related technical officers, inspectors and other employees.

[A] 104 General Authority and Responsibilities

[A] 104.12 Fire Marshal's Office Procedures and Specification Guide

References to the Little Elm Fire Department's *Fire Marshal's Office Procedures and Specification Guide* (aka "Contractor's Guide" or "the Guide") will be made throughout this code and serves as a quick reference guide to assist developers and contractors in facilitating their responsibilities as they relate to the fire code. Any conflict between the guide, local amendments, and/or the International Fire Code shall be resolved at the discretion of the fire code official.

[A] 105 Permits

[A] 105.2 Application

[A] 105.2.3 Time Limitation of Application

An application for a permit for any proposed work or operation shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the *fire code official* is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Reinstatement of expired permits will require the applicant to resubmit application and required documents, and shall be liable for applicable permit fees.

[A] 105.4 Construction Documents

[A] 105.4.6 Retention of Construction Documents

One set of construction documents (printed or digital) shall be retained by the *fire code official* for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws. One set of approved construction documents shall be returned to the applicant, and said set, along with the fire department permit, and plan review comments, if any, shall be kept on the site of the building or work from the date issued and until the completion of

the permits associated inspections and the Fire Department's Final Certificate of Occupancy Inspection, where applicable. at all times during which the work authorized thereby is in progress.

[A] 105.6 Required Operational Permits

[A] 105.6.27 LP Gas

An operational permit is required for:

- ~~1. Storage and use of LP Gas.~~

Exception:

~~A permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less serving occupations in Group R-3.~~

- ~~2. Operation of cargo tankers that transport LP Gas.~~

[A] 105.7 Required Construction Permits

The *fire code official* is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.20. ~~105.7.16.~~

[A] 105.7.17 Smoke Control or Exhaust Systems

Construction permits are required for smoke control or exhaust systems as specified in Section 909 and Section 910 respectively. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

[A] 105.7.18 Electronic Access Control Systems

Construction permits are required for the installation or modification of an electronic access control system, as specified in Section 503 and Section 1008. A separate construction permit is required for the installation or modification of a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

[A] 105.7.19 Gates and Barricades

Construction permits are required for the installation or modification of an electronic or manual control system specified in section 503.5 and 503.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

[A] 105.7.20 Fire Lands and Traffic Calming Devices

Construction permits are required for the modification of any fire lane and/or for the installation or modification of any traffic calming device. Maintenance performed in accordance with this code is not considered a modification; unless such device is not in compliance with this code, and does not require a permit.

[A] 106 Inspections**[A] 106.2 Inspections****[A] 106.2.1 Inspection Requests**

It shall be the duty of the holder of the permit or their duly authorized agent to notify the *fire code official* when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

Inspection requests shall comply with the Town of Lakewood Village Administrative Procedures.

[A] 106.5 Inspections of Existing Premises

The fire code official or designated representative shall inspect all buildings, premises, or portions thereof as often as may be necessary to ensure continued compliance with the provisions of this code.

An inspection and fee shall be charged. The occupant, lessee, or person making use of the building or premise shall pay said fee(s), as established in Section 113.2, within thirty (30) days of being billed as a condition to continue lawful occupancy of the building or premise. Continued non-compliance may result in the issuance of a citation and subject to the penalties established in Section 109.4.

[A] 106.5.1 Habitual Violations

An occupant, lessee, or person making use of a building or premise that has been cited for a violation of this code, or previous code for the same violation over multiple initial maintenance inspections shall waive right to notice of violation in Section 109.3 and may be immediately issued a citation subject to the penalties as established by Section 109.4.

[A] 109 Violations**[A] 109.4 Violation Penalties**

Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or directive of the *fire code official*, or of a permit or certificate used under provisions of this code, shall be guilty of separate offenses for each day during which the violation is continued after notification, ~~punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.~~

[A] 111 Stop Work Order**[A] 111.4 Failure to Comply**

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine, ~~of not less than [AMOUNT] dollars or more than [AMOUNT] dollars.~~

[A] 113 Fees**[A] 113.2 Schedule of Permit Fees**

A fee for each permit, inspection or re-inspection shall be as indicated in the Consolidated Fee Ordinance for the Town of Lakewood Village. ~~A fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority.~~

[A] 113.3 Work Commencing Before Permit Issuance

Any person who commences any work, activity or operation regulated by this code before obtaining the necessary permits shall be subject to penalty of 100 percent of the usual permit fee ~~an additional fee established by the applicable governing authority, which shall be in addition to the required permit fees.~~

CHAPTER 2. DEFINITIONS

The following additions, deletions and amendments to the 2012 International Fire Code adopted herein and hereby approved and adopted.

202 General Definitions**Ambulatory Care Facility**

Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less-than-24-hour basis to persons who are rendered incapable of self-preservation by the services provided. This group may include but not limited to the following:

1. Dialysis Centers
2. Sedation Dentistry
3. Surgery Centers
4. Colonic Centers
5. Psychiatric Centers

Atrium

An opening connecting ~~three~~ two or more stories other than enclosed *stairways*, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505 of the *International Building Code*.

Fire Watch

A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals or standby personnel when required by the fire code official, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

Fireworks

Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration or detonation, and/or activated by ignition with a match or other heat production device that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

Fireworks, 1.4G.

Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G.

Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN 0335 by the DOTn.

High-Piled Combustible Storage

Storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet (3658 mm) in height. When required by the *fire code official*, *high-piled combustible storage* also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet (1829 mm) in height.

Any building classified as a group S Occupancy or Speculative Building exceeding 5,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified, a fire protection system and life safety features shall be installed as for Class IV commodities, to the maximum pile height.

High-Rise Building

A building with an occupied floor located more than ~~55~~ 75 feet (~~16,764mm~~ 22,860 mm) above the lowest level of fire department vehicle access.

Repair Garage

A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor

vehicles for items such a lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

Self-Service Storage Facility

Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

Standby Personnel

Qualified fire service personnel approved by the Fire Chief. When utilized, the umber required shall be as directed by the Fire Chief. Charges for utilization shall be as normally calculated by the jurisdiction.

CHAPTER 3. GENERAL REQUIREMENTS

307 Open Burning, Recreational Fires and Portable Outdoor Fireplaces

307.2 Permit Required

A permit shall be obtained from the *Denton County* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, ~~a bonfire~~. Application for such approval shall only be presented by and permits issued to the *owner* of the land upon which the fire is to be kindled.

Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality guidelines and/or restrictions
2. State, County, or local temporary or permanent bans on open burning.
3. Local written policies as established by the fire code official.

307.4 Location

~~The location for *open burning* shall not be less than 50 feet (15 240 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet (15 240 mm) of any structure.~~

Exceptions:

1. ~~Fires in approved containers that are not less than 15 feet (4572 mm) from a structure.~~
2. ~~The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.~~

307.4.3 Portable outdoor fireplaces.

Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

Exception:

1. Portable outdoor fireplaces used at one- and two-family dwellings.

2. Except in one- or two-family dwellings when used on a non-combustible or limited combustible surface (i.e. concrete pad or maintained lawn).

307.4.4 Permanent Outdoor Firepit

Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

307.4.5 Trench Burns

Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.

307.5 Attendance

Open burning, trench burns, bonfires, or recreational fires and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other *approved* on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

308 Open Flames

308.1 General

308.1.4 Open-Flame Cooking Devices

Open-flame cooking devices, charcoal burners and other similar open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.

Exceptions:

1. One- and two-family dwellings, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (33.58 kg) [nominal 20 pounds (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 lbs. (5 containers).
2. Where buildings, balconies and decks are protected by an automatic sprinkler system, except that LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20 pound (9.08 kg) LP-gas capacity], with an aggregate LP-gas capacity not to exceed 40 lbs. (2 containers).
3. LP-gas cooking devices having LP-gas container with a water capacity not greater than 2¹/₂ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].

308.6 Open-Flame Devices

308.1.6.2 Portable Fueled Open-Flame Devices

Portable open-flame devices fueled by flammable or combustible gases or liquids shall be enclosed or installed in such a manner as to prevent the flame from contacting combustible material.

Exceptions:

1. LP-gas-fueled devices used for sweating pipe joints or removing paint in accordance with Chapter 61.
2. Cutting and welding operations in accordance with Chapter 35.
3. Torches or flame-producing devices in accordance with Section 308.1.3. Section 308.4.
4. Candles and open-flame decorative devices in accordance with Section 308.3.

311 Vacant Premises

3011.5 Placards

The fire code official is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 110 of this code relating to structural or interior hazards shall be marked as required by Sections 311.5.1 through 311.5.5.

319 Burn Ban

319.1 General

In the event that a fire emergency declaration (burn ban) is issued by the County of Denton, Texas, through proclamation or Executive Order of the Denton County Commissioners Court; that ban shall become enforceable within the Town limits of Lakewood Village and be in effect from the date executed until such time the declaration/ban expires or is terminated.

319.2 Definition

The definition of combustible materials in the section shall include but not limited to, the use of all fireworks, discarding of cigarettes or other flammable materials, materials used in activities such as welding and any other activity that could result in fire.

319.3 Violation

The use of a combustible material or knowingly and willingly allowing the use of a combustible material on private property or in any outdoor environment by any person is prohibited while this section is in effect.

A violation of this section is a separate and distinct offense of other provisions of this code.

319.4 Outdoor Cooking

All outdoor cooking or open flame device while this section is in effect are prohibited.

Exceptions:

1. The cooking device is propane or natural gas and has a complete and full enclosure that is utilized at all times.
2. The cooking device is wood or charcoal and has a complete and full enclosure that is utilized, and all areas around the cooking device shall be clear of vegetation and/or combustible materials or debris for a 5 foot (1524 mm) radius

319.5 Hot Work / Welding

Where welding must be performed in the field, the following mitigating efforts will be in force while this section is in effect.

319.5.1 Open Hot-Work

1. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least thirty feet in all directions;
2. Winds speed must be no more than 20 miles per hour while performing welding, cutting or grinding operations outside of approved barriers or enclosures;
3. Relative humidity must be above 25%
4. Each site will have the ability to call 911 for emergency response;
5. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
6. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
7. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
8. All persons must report the intent to perform hot work to the Town of Lakewood Village Fire Cod Official prior to work commencing. Unreported hot work is in violation of this order.

319.5.2 Enclosed Hot-Work

1. All welding, cutting and grinding operations may be performed in a total welding enclosure, or "welding box", that is sufficiently high to control sparks and includes a fire retardant cover over the top.
2. All areas where welding, cutting or grinding operations are being performed will be free of vegetation and/or combustibles for at least twenty feet in all directions;
3. Winds speed must be no more than 22 miles per hour while performing welding, cutting or grinding operations;
4. Relative humidity must be above 20%;
5. Each site will have the ability to call 911 for emergency response;
6. A dedicated fire watch person will attend each welder, cutter, grinder or any activity that causes a spark;
7. A minimum of one (1) water pressure fire extinguisher or pressurized water source per fire watch person is required;
8. Where welding (above ground and sub-surface) is required in an area where there is a potential for a hazardous atmosphere, barriers will be substituted for total enclosures (e.g. "wind walls") to prevent sparks from coming in contact with any combustible material and/or vegetation;
9. The barriers will be installed to allow ventilation of the work area and ingress and egress to the work area for personnel safety;
10. Sub-surface, or "bell hole", welding and grinding operations within approved excavations are allowed if all other "enclosed" mitigation efforts are in compliance;

11. If an emergency exists where welding has to be performed, the Fire Marshal may issue a temporary exception to the order.
12. All persons must report the intent to perform hot work to the Lakewood Village Fire Code Official prior to work commencing. Unreported hot work is in violation of this order.

319.6 Burn Permits

All burn permits, regardless of whether previously issued shall be suspended for the duration of the burn ban.

319.7 Penalty

Penalty for violation(s) of the section are established in Sec 109.3 of this code as adopted.

CHAPTER 4. EMERGENCY PLANNING AND PREPAREDNESS

401 General

401.3 Emergency Responder Notification

401.3.2 Alarm Activations

Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department. All occupants of that facility shall follow their fire department approved evacuation plan or immediately evacuate the facility and shall not return until authorized by the fire department personnel.

401.9 False Alarms and Nuisance Alarms

False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted.

CHAPTER 5. FIRE SERVICE FEATURES

501 General

501.4 Timing of Installation

When fire apparatus access roads or a water supply for fire protection is required to be installed for any structure or development, they shall be installed, tested and approved prior to the time of which construction has progress beyond completion of the foundation of any structure. ~~And made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.~~

503 Fire Apparatus Access Roads

503.1 Where Required

503.1.1 Buildings and Facilities

Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an *approved* route around the exterior of the building or facility.

Fire lance measurements shall be as the hose lays, begin from the centerline of the fire lane and unobstructed by any barriers. Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a ten feet (10') wide unobstructed path around the external walls of the structure. A five-foot wide level pathway shall be provided unobstructed through all barriers. A continuous row of parking between the fire lane and the structure shall be considered a barrier.

Exception: The *fire code official* is authorized to increase the dimension of 150 feet (45 720 mm) where:

1. The building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an *approved* alternative means of fire protection is provided.
3. There are not more than two Group R-3 or Group U occupancies.

503.1.2 Additional Access

The *fire code official* is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

503.2 Specifications

Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8.

Fire lanes provided during the platting process shall be so indicated on the plat as an easement. Where fire lanes are provided and a plat is not required, the limits of the fire lane shall be shown on a site plan and placed on permanent file with the Town's Planning Department.

503.2.1 Dimensions

Fire apparatus access roads shall have an unobstructed width of not less than 24 ~~20~~ feet (7315 ~~6096~~ mm), ~~exclusive of shoulders~~, except for *approved* security gates in accordance with Section

503.6, and an unobstructed vertical clearance of not less than 14 13 feet ~~6 inches~~ (4267 4115 mm).

When servicing a structure of greater than two stories in height, a 26 foot fire lane is required. Any such fire lane easement shall either connect both ends to a dedicated street or be provided with a turnaround having a minimum outer radius of 50 feet.

503.2.1.2 Radius

All curve or turn radii must be sufficient to accommodate the turning profile of the largest first-alarm emergency apparatus provided by or available to the Little Elm Fire Department through mutual/automatic aid agreement.

This may be accomplished by use of minimum turn requirements for an AASHTO WB-50 vehicle. Twenty-foot (20') minimum radius is preferred. Conformance must be demonstrated by including a scale illustration on the submitted site plan showing the turning of an AASHTO WB-50 vehicle within the proposed fire lanes.

Fire lane designs shall be provided during the site plan process or when appropriate if site plan approval is not required.

503.2.2 Authority

The *fire code official* shall have the authority to require an increase in the minimum access widths, vertical clearances, and radii where they are inadequate for fire or rescue operations.

503.2.3 Surface

Fire lane and fire apparatus access roads shall be constructed to meet the Town of Lakewood Village Engineering Standards. ~~designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.~~

All fire lanes shall be maintained and kept in good state of repair at all times by the owner and the Town of Lakewood Village shall not be responsible for maintenance thereof. It shall further be the responsibility of the owner to ensure that all fire lane markings required by Section 503.3 be kept so that they are easily distinguishable to the public.

503.2.5 Dead-Ends

Dead-end fire apparatus access roads are not permitted. ~~in excess of 150 feet (45 720 mm) in length shall be provided with~~ An *approved* fire department turn around shall be required. ~~area for turning around fire apparatus.~~

503.3 Marking

Where required by the *fire code official*, ~~approved signs or other approved notices or markings that include the words NO PARKING FIRE LANE shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which *fire lanes* are~~

~~designated shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.~~

Striping, signs, or other markings, when approved by the code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

1. Striping. Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.
2. Sign. Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

503.4 Obstructions of Fire Apparatus Access Roads

~~Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times.~~

Fire apparatus roads shall not be obstructed in any manner, including the parking of vehicles, whether attended or unattended for any period of time. Persons in charge of a construction project, such as, but not limited to, a General Contractor, are responsible to ensure that fire lanes are kept clear of vehicles and other obstructions at all times and may be issued a citation for non-compliance under this section. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times. The Little Elm Fire Chief, Chief Building Official, Fire Marshal, Lakewood Village Mayor, and Lakewood Village Mayor Por-Tem, and their designated representatives are authorized to remove or cause to be removed any material, vehicle or object obstructing a fire lane at the expense of the owner of such material, vehicle or object.

503.4.1 Traffic Calming Devices

Traffic calming devices shall be prohibited unless *approved by the fire code official*. A permit shall be required as per Section 105.7 of this code and the construction of such devices shall comply with the Fire Marshal's Office's Procedures and Specification Guide.

503.4.2 Obstruction and Control

No owner or person in charge of any premises served by a fire lane or access easement shall abandon, restrict or close any fire lane or easement without first securing a permit as required in

105.7 of this code and securing from the Town of Lakewood Village approval of an amended plat or other acceptable legal instrument showing the removal of the fire lane.

503.6 Security Gates

The installation of security gates across a fire apparatus access road shall be *approved* by the fire chief. Where security gates are installed, they shall have an *approved* means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be *listed* in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

The installation of security gates or other devices intended to limit the access of vehicles or persons shall require a permit as established in Section 105.7 and shall comply with the Fire Marshal's Office's Procedures and Specification Guide.

505 Premises Identification

505.1 Address Identification

New and existing buildings shall have *approved* address numbers, building numbers or *approved* building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall be substantially contrasting with their background. Where required by the *fire code official*, address numbers shall be provided in additional *approved* locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. ~~Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.~~ Address numbering shall comply with the following:

505.1.1 Single Family Homes

Minimum 4" high, 5/8" stroke.

505.1.2 Multifamily Communities

Street Address shall be a minimum of 12 inch high with a 2" stroke. Individual building numbers shall be a minimum of 18" high with a 3" stroke. Buildings over 100 feet in length require a minimum of two (2) numbers per building. Apartment spread numbers shall be a minimum of 7" high with a one inch stroke and corridor spread numbers shall be a minimum of 4" high with a 5/8 inch brush stroke. Individual apartment unit numbers shall be a minimum of 4" in height with a 5/8 inch stroke.

505.1.3 Large Office and Warehouse Buildings

Address must be visible from all access directions. Number shall be a minimum of 24 inches in height with a 4 inch stroke. Buildings over 500 feet long shall have two address locations if more than one access point is visible. Suite numbers shall be required for multi-tenant complexes and

shall be located over the front door and on the rear door, six inches in height with a one inch brush stroke.

505.1.4 Shopping Centers, High Rise Buildings and Other Applications.

A minimum of 10 inch high numbers with a 2" brush stroke shall be visible from all access directions. Suite numbers are required over the door with 4" high numbers with a 5/8 inch brush stroke. Buildings beyond 100 feet from the street and 10,000 square feet shall install 12 to 18 inch numbers as determined by the fire code official.

505.1.5 Marquee and monument

Addresses installed on a marquee located next to the street will require numbers 8 inch high with a two inch brush stroke to be located a minimum of 3 feet above grade. Marquee and Monument signs must also comply with other Town of Lakewood Village Sign Ordinance Requirements.

505.3 Directional / Equipment ID Signage

Directional and equipment identification signage shall be provided by the building owner on all new and existing buildings where required by the fire code official and shall meet the requirements as set forth in the Fire Marshal's Office's Procedures and Specification Guide.

506 Key Boxes

506.1 Where Required

Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the *fire code official* is authorized to require a key box to be installed in an *approved* location. The key box shall be of an *approved* type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the *fire code official*.

All new and existing occupancies, except one- and two- family residences, shall provide (a) lock box (es) as specified in the Fire Marshal's Office's Procedures and Specification Guide. Existing properties that are equipped with a lockbox that is of inadequate size shall be upgraded to a size appropriate.

507 Fire Protection Water Services

507.1 Where Required

507.1.1 Water Distribution Systems

Water distribution systems shall be designed meeting the minimum criteria in sections 507.1.1.1 through 507.1.1.4 and approved by the AHJ.

507.1.1.1 Fire Protection and Hydrants

The minimum size of water mains, for providing fire protection and serving fire hydrants shall be 6 inches in diameter.

507.1.1.2 Minimum Standards for Distribution Piping

Distribution piping shall be sized to meet design flow as determined by hydraulic analysis on water system flow gradients. The minimum size in a distribution system shall be 6 inches in diameter. Larger main sizes may be necessary to achieve required fire flow and maintain residual pressure specified for both domestic consumption and fire flow. The piping sizes must meet standards specified in Table 507.1.1.2.

TABLE 507.1.1.2. Minimum Standards for Distribution Piping

Appurtenance	Minimum Standard
<u>Smallest pipe for hydrant feed¹</u>	<u>6 inches</u>
<u>Smallest pipe in distribution system</u>	<u>8 inches</u>
<u>Smallest branching pipes that are dead ends</u>	<u>8 inches</u>
<u>Smallest pipe in high value district</u>	<u>8 inches</u>
<u>Smallest pipe on principal streets in business, commercial, multifamily districts or complexes</u>	<u>12 inches</u>
<u>Main supplying 3 or more hydrants^{1,2}</u>	<u>12 inches</u>

¹fire suppression system supply mains are considered as a “hydrant” for pipe sizing

²Does not apply to residential developments

507.1.1.3 Looped System Requirements for Secondary Feeders

A looped secondary feeder system shall be installed to supply all buildings with a fire flow over 1,000 gpm or in high value, commercial, business, and multifamily districts, or as determined by the AHJ.

507.1.1.4 Looped System Requirements for Distributor Mains

Where a distributor main supplies 3 or more fire hydrants or fire suppression system supply mains, the distribution system shall be looped.

507.1.1.5 Valves in Distribution Systems

Valves shall be installed along water distribution lines as required by the Town of Lakewood Village.

507.4 Water Supply Test Date and Information

The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. Test shall be conducted by Town Lakewood Village or contractor approved by the Fire Code Official. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the *fire code official*. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply

fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

~~The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system.~~

507.5 Fire Hydrant Systems

507.5.1 Where Required

As properties develop, fire hydrants shall be located at all intersecting streets and at the maximum spacing indicated in Table 507.5.1. Distances between hydrants shall be measured along the route that fire hose is laid by a fire vehicle from hydrant to hydrant.

TABLE 507.5.1
MAXIMUM DISTANCE BETWEEN HYDRANTS

OCCUPANCY	SPRINKLERED	NOT SPRINKLERED
Residential (1 & 2 Family)	600 feet	500 feet
Residential (Multi-Family)	400 feet	300 feet
All Other	500 feet	300 feet

There shall be a minimum of two (2) fire hydrants serving each property within the prescribed distance listed in Table 507.5.1.

Protected Properties. Fire Hydrants shall be installed along fire lanes with spacing as required for street installations specified in 507.5.1. In addition, hydrants required to provide supplemental water supply for automatic fire protection systems shall be within 100 feet of the fire department connection (FDC) for such systems.

~~Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.~~

Exceptions:

- ~~1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).~~
- ~~2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).~~

507.5.4 Obstruction

Unobstructed access to fire hydrants shall be maintained at all times. Post, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrant from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment. or fire hydrants. The Fire Chief, and their designated representatives are authorized to remove or cause to be removed any material, vehicle or object obstructing a fire hydrant, fire department inlet connection or fire protection system control valves at the expense of the owner of such material, vehicle or object.

507.5.7 Fire Hydrant Type

All hydrants shall be of the three-way type with National Standard threads, breakaway construction, minimum 5 1/4" valve opening, and shall comply with the latest AWWA specification C-502. The hydrant shall have a 4 1/2" large connection with a 5" Hydra-Storz quick connection by Hydra-Shield and with two 2 1/2" side connections and shall be placed on water mains of no less than six inches (6") in size. Fire hydrants shall be Mueller "Centurion" or approved equal.

507.5.8 Valves

Valves shall be placed on all fire hydrants leads.

507.5.9 Breakaway Point

Fire hydrants shall be installed so that the breakaway point is no less than three (3) inches, and no greater than five (5) inches above the grade surface.

507.5.10 Curb Line

Fire hydrants shall be located a minimum of two (2) feet and a maximum of six (6) feet behind the curb line. No fire hydrant shall be placed in a cul-de-sac or the turning radius of fire lanes.

507.5.11 Positioning

All fire hydrants shall be installed so that the 4 1/2" connection will face the fire lane or street.

507.5.12 Limiting Access Obstruction

Fire hydrants, when placed at intersections or access drives to parking lots, shall be placed so that the minimum obstruction of the intersection or access drive will occur when the hydrant is in use.

507.5.13 Private Property

Fire hydrants located on private property shall be accessible to the fire department at all times.

All fire hydrants placed on private property shall be adequately protected by either curb stops or concrete post or other approved methods. Such stops shall be the responsibility of the landowner on which the fire hydrant is installed.

507.5.14 Location to Building

No fire hydrant shall be located closer than 40 feet to a non-residential building or structure

507.5.15 Identification

An approved blue, two-sided reflector shall be utilized to identify each hydrant location. The reflector shall be affixed to the center line of each roadway or fire access lane opposite fire hydrants.

507.5.16 Color

Fire hydrant caps and bonnet shall be painted according Little Elm Engineering Department Standards

509 Fire Protection and Utility Equipment Identification and Access

509.1 Identification

Fire protection equipment shall be identified in an accordance with the Fire Marshal's Offices's Procedures and Specification Guide. ~~approved manner.~~ Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. *Approved* signs required to identify fire protection equipment and equipment locations shall be constructed to the Fire Marshal's Offices' Procedures and Specification Guide. ~~of durable materials, permanently installed and readily visible.~~

CHAPTER 6. BUILDING SERVICES AND SYSTEMS

603 Fuel-Fired Appliances

603.3 Fuel Oil Storage Systems

603.3.2 Fuel Oil Storage Inside Buildings

603.3.2.1 Quality Limits

One or more fuel oil storage tanks containing Class II or III *combustible liquid* shall be permitted in a building. The aggregate capacity of all such tanks shall not exceed 660 gallons (2498 L).

Exception: The aggregate capacity limit shall be permitted to be increased to 3,000 gallons (11 356 L) in accordance with all requirements of Chapter 57. ~~of Class II or III liquid for storage in protected above ground tanks complying with Section 5704.2.9.7, when all of the following conditions are met:~~

- ~~1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above ground tanks;~~
- ~~2. The 3,000-gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks; and~~

3. ~~The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1.~~

603.3.2.2 Restricted Use and Connections

Tanks installed in accordance with Section 603.3.2 shall be used only to supply fuel oil to fuel-burning ~~or generator~~ equipment installed in accordance with Section 603.3.2.4. Connections between tanks and equipment supplied by such tanks shall be made using closed piping systems.

604 Emergency and Standby Power Systems

604.1 Installation

Emergency and standby power systems required by this code or the *International Building Code* shall be installed in accordance with this code, NFPA 110 and NFPA 111. Existing installations shall be maintained in accordance with the original approval, except as specified in Chapter 11.

604.1.2 Critical Operations Power Systems (COPS)

For Critical Operations Power Systems necessary to maintain continuous power supply to facilities or parts of facilities that require continuous operation for the reasons of public safety, emergency management, national security, or business continuity, see NFPA 70.

604.2 Where Required

Emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.24 or elsewhere identified in this code or any other referenced code. ~~604.2.18-4.~~

604.2.1 Emergency Voice/Alarm Communications Systems

Emergency power shall be provided for emergency voice/alarm communication systems in the following occupancies, or specified elsewhere in this code ~~Group A occupancies~~ in accordance with Section 907.2.1.1.

Covered and Open Malls, Section 604.2.13

Group A occupancies, Sections 907.2.1.1 and 907.5.2.2.4.

Special Amusement buildings, Section 907.2.12.3

High rise buildings, Section 907.2.13

Atriums, Section 907.2.14

Deep Underground buildings, Section 907.2.19

604.2.2 Smoke Control Systems

Standby power shall be provided for smoke control systems in the following occupancies, or as specified elsewhere in this code, in accordance with Section 909.11.

Covered mall building, IBC, Section 404.5

Atriums, IBC, Section 404.7

Underground buildings, IBC, Section 405.5

Group I-3, IBC, Section 408.9 Stages, IBC, Section 410.3.7.2

Special Amusement buildings (as applicable to Group A's), IBC, Section 411.1

Smoke protected seating, Section 1028.6.2.1

604.2.3 Exit Signs

Emergency power shall be provided for *exit* signs in accordance with Section 1011.6.3. (90 minutes)

604.2.4 Means of Egress Illumination

Emergency power shall be provided for *means of egress* illumination in accordance with Section 1006.3. (90 minutes)

604.2.9 Membrane Structures

Emergency power shall be provided for *exit* signs in temporary tents and membrane structures in accordance with Section 3103.12.6.1. Standby power shall be provided for auxiliary inflation systems in permanent membrane structures in accordance with the *International Building Code*. (4 hours)

604.2.19 Smokeproof Enclosures and Stair Pressurization Alternative

Standby power shall be provided for smokeproof enclosures, stair pressurization alternative and associated automatic fire detection systems as required by the International Building Code, Section 909.20.6.2.

604.2.20 Elevator Pressurization

Standby power shall be provided for elevator pressurization system as required by the International Building Code, Section 909.21.5.

604.2.21 Elimination of Smoke Dampers in Shaft Penetrations

Standby power shall be provided when eliminating the smoke dampers in ducts penetrating shafts in accordance with the International Building Code, Section 717.5.3, exception 2.3.

604.2.22 Common Exhaust Systems for Clothes Dryers

Standby power shall be provided for common exhaust systems for clothes dryers located in multistory structures in accordance with the International Mechanical Code Section 504.8, item 7.

604.2.23 Hydrogen Cutoff Rooms

Standby power shall be provided for mechanical ventilation and gas detection systems of Hydrogen Cutoff Rooms in accordance with the International Building Code, Section 421.8.

604.2.24 Means of Egress Illumination in Existing Buildings

Emergency power shall be provided for means of egress illumination in accordance with Section 1104.5 and 1104.5.1 when required by the fire code official. (90 minutes in I-2, 60 minutes elsewhere.)

604.7 Energy Time Duration

Unless a time limit is specified by the fire code official, in this chapter or elsewhere in this code, or in any other referenced code or standard, the emergency and standby power system shall be supplied with enough fuel or energy storage capacity for not less than 2-hour full-demand operation of the system.

Exception: Where the system is supplied with natural gas from a utility provider and is approved.

CHAPTER 7. FIRE-RESISTANCE-RATED-CONSTRUCTION

704 Floor Openings and Shafts

704.1 Enclosure

Interior vertical shafts including, but not limited to, *stairways*, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected in accordance with the codes in effect at the time of construction but, regardless of when constructed, not less than as required in Chapter 46. New floor openings in existing buildings shall comply with the International Code. as required in Chapter 11. New floor openings in existing buildings shall comply with the *International Building Code*.

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

807 Decorative Materials other than Decorative Vegetation in new and Existing Buildings

807.4 Occupancy Based Requirements

807.4.3 Group E

807.4.3.2 Artwork

Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such material shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceiling shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

807.4.4 Group I-4, Day Care Facilities

807.4.4.2 Artwork

Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area and on the walls of classrooms to not more than 50 percent of each wall area. Such material shall not be continuous from floor to ceiling or wall to wall.

Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceiling shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

CHAPTER 9 FIRE PROTECTION SYSTEMS

901 General

901.4 Installation

901.4.6 Pump and Riser Room Size

901.4.6.1 Automatic Fire Sprinkler Control Room (Riser Rooms)

Riser rooms shall be used for the purpose of fire suppression, fire alarm and control systems only. The following are prohibited equipment and/or facilities in a riser room: mop sinks, roof access, electrical equipment and all storage.

901.4.6.2 Riser Room Size

Riser rooms shall be so constructed to a size that facilitates maintenance and where fire operations can be performed. Minimum riser room size for a “shotgun” riser is 6 feet by 6 feet.

901.4.6.3 Lighting

Riser rooms shall be provided with an emergency light.

901.4.6.4 Temperature of Riser Room

Riser rooms shall be provided with a suitable means for maintaining the temperature above 40 degrees Fahrenheit (5 degrees Celsius).

901.4.6.5 Riser Room Access

All Riser rooms shall be directly and only accessible from the exterior of the structure. All new and existing riser rooms shall be identified in accordance to the Fire Marshal’s Office’s Procedures and Specification Guide.

901.6 Inspection, Testing and Maintenance

901.6.1 Standards

901.6.1.1 Standpipe Testing

Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different type of standpipe systems.
2. For any manual (wet or dry) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There are no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth-Year" for Type ITM, and the note on the back of the tag shall read "5 year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative code Fire Sprinkler Rules with regard to Yellow Tag and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (fire code official) shall be followed.
7. Additionally, records or the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the fire code official for request to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

901.7 Systems of Service

Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved* fire watch shall be provided for all occupants left unprotected by the shutdown until the *fire protection system* has been returned to service.

Where utilized, fire watches shall be provided with at least one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

901.11 Discontinuation or Change of Service

Notice shall be made to the fire code official whenever contracted alarm services for monitoring of any fire alarm system is terminated for any reason, or a change in alarm monitoring provider occurs. Notice shall be made in writing to the fire code official by the building owner and alarm service provider prior to the service being terminated.

903 Automatic Fire Sprinkler Systems

903.1 General

903.1.1 Alternative Protection

Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to lieu of automatic sprinkler protection where recognized by the applicable standard and *approved* by the ~~fire~~ *code official*.

903.2 Where Required

Automatic sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry door to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

~~Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.~~

~~**Exception:** Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1 hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or not less than 2-hour *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.~~

903.2.9 Group S-1

903.2.9.3 Self-Service Storage Facility

An automatic sprinkler system shall be installed throughout all self-service storage facilities.

A screen shall be installed at eighteen (18") inches below the level of the sprinkler heads to restrict storage above that level. This screen shall be a mesh of not less than one (1) inch not

greater than six (6") inches in size. This screen and its supports shall be installed such that all elements are at least eighteen (18") inches below any sprinkler head.

Exception: One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

903.2.11 Specific Building Areas and Hazards

903.2.11.3 Non-Residential Buildings 35 Feet or More in Height

An automatic sprinkler system shall be installed throughout non-residential buildings with a floor level, other than penthouses in compliance with Section 1509 of the International Building Code having an occupant load of 30 or more that is located 35 55 feet (10,668 mm) (16 764 mm) or more above the lowest level of fire department vehicle access.

Exceptions:

1. Airport control towers.
2. Open parking structures in compliance with Section 406.5 of the International Building Code.
3. Occupancies in Group F-2.

903.2.11.7 High-Piled Combustible Storage

For any building with a clear height exceeding 12 feet (4572mm), see Chapter 32 to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms

New and existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Non-Single Family Residential Buildings over 5,000 sq. ft.

An automatic fire sprinkler system shall be installed throughout all non-single family residential buildings with a building area 5,000 sq. ft. or greater, in all existing buildings that are enlarged to be 5,000 sq. ft. or greater, and in all existing buildings that the cumulative remodel over any period of time that is equal to or greater than 5,000 sq. ft.. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with Section 406.5 of the *International Building Code*.

903.3 Installation Requirements

903.3.1 Standards

903.3.1.1 NFPA 13 Sprinkler Systems

903.3.1.1.1 Exempt Locations

Where approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an *approved* automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when *approved by the fire code official*.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a *fire-resistance rating* of not less than 2 hours.
- ~~4. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
- ~~5. Fire service access elevator machine rooms and machinery spaces.~~
6. Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstance. ~~associated with occupant evacuation elevators designed in accordance with Section 3008 of the *International Building Code*.~~

903.3.1.2 NFPA 13R Sprinkler Systems

903.3.1.2.2 Attics, Open Breezeways, and Attached Garages.

Sprinkler protection is required in attic spaces of such buildings two or more stories in height, open breezeways, and attached garages.

903.3.1.3 NFPA 13D Sprinkler Systems

Where allowed, automatic sprinkler systems installed in one and two-family *dwelling*s, ~~Group R-3 and R-4~~ *congregate living facilities* and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

903.3.5 Water Supplies

Water supplies for *automatic sprinkler systems* shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the *International Plumbing Code*.

~~Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.~~

903.3.7 Fire Department Connections

The location of fire department connections shall be *approved* by the *fire code official* and shall be remote from the building (outside of the collapse zone), placed adjacent to the primary fire lane access for the building served and signed in accordance with the Fire Marshal's Office's Procedures and Specification Guide.

FDC shall be five-inch (5") Storz connection with a 30-45 degree down elbow with chained cap. Traditional 2-way Siamese connection with caps may be used when approved by the Fire Department.

Where the FDC is serving more than 500 GPM the building shall be provided with one 5-inch Storz connection and one 2-way Siamese connection.

903.4 Sprinkler System Supervision and Alarms

All valves controlling the water supply for *automatic sprinkler systems*, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a *listed* fire alarm control unit.

Exceptions:

1. *Automatic sprinkler systems* protecting one- and two-family *dwellings*.
2. Limited area systems serving fewer than 20 sprinklers.
3. *Automatic sprinkler systems* installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the *automatic sprinkler system*, and a separate shutoff valve for the *automatic sprinkler system* is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

903.4.2 Alarms

An approved audible device, located on the exterior of the building in an *approved* location, shall be connected to each *automatic sprinkler system*. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the *automatic sprinkler system* shall actuate the building fire alarm system.

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

904 Alternative Automatic Fire Extinguishing Systems

904.11 Commercial Cooking Systems

904.11.6 Operations and Maintenance

903.11.6.4 Nozzle Caps

All new and existing automatic hood suppression systems shall use metal caps on nozzles that are located between the cooking surface and hood filters.

905 Standpipe Systems

905.2 Installation Standard

Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

905.3 Required Installations

905.3.8 Building Area

In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

905.4 Location of Class I Standpipe Hose Connections

Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required *stairway*, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise *approved* by the *fire code official*.
2. On each side of the wall adjacent to the *exit* opening of a horizontal *exit*.

Exception: Where floor areas adjacent to a horizontal *exit* are reachable from *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal *exit*

3. In every *exit* passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from *exit stairway* hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an *exit* passageway or *exit corridor* to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way a hose connection shall be located to serve the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.
6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the *fire code official* is authorized to require that additional hose connections be provided in *approved* locations.
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors or as required by the code official.

905.9 Valve Supervision

Valves controlling water supplies shall be supervised in the open position so that a change in the normal position of the valve will generate a supervisory signal at the supervising station required by Section 903.4. Where a fire alarm system is provided, a signal shall also be transmitted to the control unit.

Exceptions:

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.
2. Valves locked in the normal position and inspected as provided in this code in buildings not equipped with a fire alarm system.

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds and not more than 90 seconds. All control valves in the sprinkler and standpipe systems except for

fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

907 Fire Alarm and Detection Systems

907.1 General

907.1.4 Design Standards

All alarm systems new or replacement shall be analog addressable unless approved by the fire code official.

Exception:

Existing systems need not comply unless the total building remodel or expansion exceeds 30% of the building or cumulative building remodel or expansion exceeds 50% of the original construction of the building.

907.2 Where Required – New Buildings and Structures

907.2.1 Group A

A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies ~~where the occupant load due to the assembly occupancy is~~ having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.9 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Activation of fire alarm modification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot candle (11 lux) at the walking surface. level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

907.2.3 Group E

A manual fire alarm system that activates the occupant notification system ~~initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and~~ installed in accordance with Section 907.6 shall be installed in Group E occupancies. When *automatic sprinkler systems* or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a

minimum of 100' of open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. A manual fire alarm system is not required in Group E educational and day care occupancies with an *occupant load* of ~~30 or~~ less 30 when provided with an approved automatic sprinkler system.
 - a. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (for care of more than five children 2 ½ or less years of age, see Section 907.2.6.).
2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - a. Interior *corridors* are protected by smoke detectors.
 - b. Auditoriums, cafeterias, gymnasiums and similar areas are protected by *heat detectors* or other *approved* detection devices.
 - c. Shops and laboratories involving dusts or vapors are protected by *heat detectors* or other *approved* detection devices.
3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1, the emergency voice/alarm communication system will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

907.2.3.1 Manual Fire Alarm Box Tamper Covers

Where pull stations are installed a tamper cover with a local audible alarm shall be installed.

907.2.6 Group I

907.2.6.4 Manual Fire Alarm Box Tamper Covers

Where pull stations are installed a tamper cover with a local audible alarm shall be installed.

907.2.13 High-Rise Buildings

High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the *International Building Code*.
2. Open parking garages in accordance with Section 406.5 of the *International Building Code*.
3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*, however, this exception does not apply to

accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

4. Low-hazard special occupancies in accordance with Section 503.1.1 of the *International Building Code*.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the *International Building Code*.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

907.5 Occupant Notification Systems

907.5.2 Alarm Notification Appliances

907.5.2.6 Type

Manual alarm actuating devices shall be an approved double action type.

907.5.3 Sound System Shunt

Where a fire alarm is installed, any circuit in which a sound system is installed for the purpose of projecting voice (other than emergency voice communication systems), music, or other sound shall be provided with a shunt mechanism to disable the circuit eliminating any potential conflict of the audible notification devices of the alarm system.

907.5.4 Signal Transmission

All signal transmissions from the protected facilities to the central station monitoring facility shall comply with NFPA 72 26.6.3.2.1.4; where referring to "one telephone-line" shall mean a hard-wired telephone line on a public switched telephone network (PSTN).

907.6 Installation

907.6.5 Monitoring

907.6.5.3 Communications Requirements

All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station as defined by NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.

907.10 Password Protection Prohibited

No fire alarm system shall be protected by a password or pin number that would hinder immediate silencing capabilities by the fire department.

907.11 Occupant Reset

Once an alarm is initiated and fire department is contacted, no person shall silence or reset an alarm prior to fire department arrival.

910 Smoke and Heat Removal

910.1 General

Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an *approved automatic sprinkler system*.
2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, only manual smoke and heat vents manually activated engineered mechanical smoke exhaust systems shall be required with these areas. Automatic smoke and heat vents are prohibited. ~~shall not be required within these areas.~~

910.2 Where Required

910.2.3 Group H

Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394m²) in single floor area.

Exception:

Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception:

Buildings of noncombustible construction containing only noncombustible materials.

910.3 Design and Installation

Table 910.3 Requirements for Draft Curtains and Smoke and Heat Vents^a

OCCUPANCY GROUP AND COMMODITY CLASSIFICATION	DESIGNATED STORAGE HEIGHT (feet)	MINIMUM DRAFT CURTAIN DEPTH (feet)	MAXIMUM AREA FORMED BY DRAFT CURTAINS (square feet)	VENT-AREA TO FLOOR AREA RATIO ^c	MAXIMUM SPACING OF VENT CENTERS (feet)	MAXIMUM DISTANCE FROM VENTS TO WALL OR DRAFT CURTAIN ^b (feet)
Group H ₂ , F-1 and S-1	—	0.2 × H ^d but ≥ 4	50,000	1:100	120	60
High-piled storage (see Section 910.2.2) Class I-IV Commodities (Option 1)	≤ 20	6	10,000	1:100	100	60
	> 20 ≤ 40	6	8,000	1:75	100	55
High-piled storage (see Section 910.2.2) Class I-IV Commodities (Option 2)	≤ 20	4	3,000	1:75	100	55
	> 20 ≤ 40	4	3,000	1:50	100	50
High-piled storage (see Section 910.2.2) High-hazard Commodities (Option 1)	≤ 20	6	6,000	1:50	100	50
	> 20 ≤ 30	6	6,000	1:40	90	45
High-piled storage (see Section 910.2.2) High-hazard Commodities (Option 2)	≤ 20	4	4,000	1:50	100	50
	> 20 ≤ 30	4	2,000	1:30	75	40

910.3.1 Design

Smoke and heat vents shall be *listed* and *labeled* to indicate compliance with UL793.

910.3.2 Vent Operation

Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 91.3.2.3.

910.3.2.1 Gravity-Operated Drop Out Vents

Automatic smoke and heat vents containing heat-sensitive glazing designed to shrink and drop out of the vent opening when exposed to fire shall fully open within 5 minutes after the vent cavity is exposed to a simulated fire represented by a time-temperature gradient that reaches an air temperature of 500°F (260°C) within 5 minutes.

910.3.2.2 Sprinklered Buildings

Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100°F (approximately 38°) greater than the temperature rating of the sprinklers installed.

910.3.2.3 Non-Sprinklered Buildings

Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception:

Gravity operated drop out vents complying with Section 910.3.2.1.

910.3.3 Vent Dimensions

The effective venting area shall not be less than 16 square feet (1.5 m²) with no dimension less than 4 feet (1219 mm), excluding ribs or gutters having a total width of not exceeding 6 inches (152 mm).

912 Fire Department Connections

912.2 Location

With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be *approved* by the fire chief.

Fire department connections shall be remote (outside of the collapse zone) from the building and placed adjacent to the primary fire lane access for the building served.

912.2.2 Existing Buildings

Existing buildings shall have the fire department connection identified by an approved sign in accordance with the Fire Marshal's Office's Procedures and Specification Guide.

~~On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" at least 6 inches (152 mm) high and words in letters at least 2 inches (51 mm) high or an arrow to indicate the location. All such signs shall be subject to the approval of the *fire code official*.~~

912.2.3 Hydrant Distance

An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

912.4 Signs

A sign shall be provided in accordance to the Fire Marshal's Office's Procedures and Specification Guide and shall be approved by the fire code official. The sign shall be mounted in an approved location and manner on all fire department connections serving automatic sprinklers, standpipes, or fire pump connections; or where required by the fire code official. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portion(s) of the building served.

~~A metal sign with raised letters at least 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION or a combination thereof as applicable. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portions of the building served.~~

913 Fire Pumps

913.1 General

Where provided, fire pumps shall be installed in accordance with this section and NFPA 20.

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. 8in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door as required by Section 506.1.

Exception:

When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required in Section 506.1.

CHAPTER 10. MEANS OF EGRESS

1007 Accessible Means of Egress

1007.1 Accessible Means of Egress Required

Accessible means of egress shall comply with this section. *Accessible* spaces shall be provided with not less than one *accessible means of egress*. Where more than one *means of egress* are required by Section 1015.1 or 1021.1 from any *accessible* space, each *accessible* portion of the space shall be served by not less than two *accessible means of egress*.

Exceptions:

1. *Accessible means of egress* are not required in alterations to existing buildings.
2. One *accessible means of egress* is required from an *accessible mezzanine* level in accordance with Section 1007.3, 1007.4 or 1007.5.
3. In assembly areas with sloped or stepped *aisles*, one *accessible means of egress* is permitted where the common path of travel is *accessible* and meets the requirements in Section 1028.8.
4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1007.

1007.5 Platform Lifts

Platform (wheelchair) lifts shall not serve as part of an *accessible means of egress*, except where allowed as part of a required accessible route in Section 1109.8, Items 1 through 10 ~~Section 1109.7, Items 1 through 9~~, of the *International Building Code*. Standby power shall be provided in accordance with Section 604.2.6 for platform lifts permitted to serve as part of a *means of egress*.

1008 Doors, Gates and Turnstiles

1008.1 Doors

1008.1.9 Door Operations

1008.1.9.4 Bolt Locks

Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.
2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
3. Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, M or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.

4. Where a pair of doors serves a Group B, F, M or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided such inactive leaf is not needed to meet egress width requirements and the building is equipped throughout with *an automatic sprinkler system* in accordance with Section 903.3.1.1. The inactive leaf shall contain no doorknobs, panic bars or similar operating hardware.
5. Where a pair of doors serves patient care rooms in Group I-2 occupancies, self-latching edge- or surface-mounted bolts are permitted on the inactive leaf provided that the inactive leaf is not needed to meet egress width requirements and the inactive leaf contains no doorknobs, panic bars or similar operating hardware.

1008.1.9.9 Electromagnetically Locked Egress Doors

Doors in the *means of egress* that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, M, R-1 or R-2, and doors to tenant spaces in Group A, B, E, M, R-1 or R-2, shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below:

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.
3. Operation of the *listed* hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the listed hardware automatically unlocks the door.
5. Where *panic or fire exit hardware* is required by Section 1008.1.10, operation of the *listed* panic or *fire exit hardware* also releases the electromagnetic lock.

1015 Exit and Exit Access Doorways

1015.1 Exit or Exit Access Doorways from Spaces

1015.1.2 All Exits and Exit Access Doorways

All exits and exit access doorways shall be designed as though they are required exits.

1015.7 Electrical Rooms

For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

1016 Exit Access and Travel Distance

1016.2 Limitations

1016.2.2 Group F-1 and S-1 Increase

The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 and S-1 occupancies where all of the following are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height;

2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and
3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

1018 Corridors

1018.1 Construction

Corridors shall be fire-resistance rated in accordance with Table 1018.1. The *corridor* walls required to be fire-resistance rated shall comply with Section 708 of the *International Building Code for fire partitions*.

Exceptions:

1. A *fire-resistance rating* is not required for *corridors* in an occupancy in Group E where each room that is used for instruction has at least one door opening directly to the exterior and rooms for assembly purposes have at least one-half of the required *means of egress* doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A *fire-resistance rating* is not required for *corridors* contained within a *dwelling or sleeping unit* in an occupancy in Group R.
3. A *fire-resistance rating* is not required for *corridors* in *open parking garages*.
4. A *fire-resistance rating* is not required for *corridors* in an occupancy in Group B which is a space requiring only a single *means of egress* complying with Section 1015.1.
5. *Corridors* adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 602 of the *International Building Code* and unprotected openings are permitted by Table 705.8 of the *International Building Code*.
6. In Group B office buildings, corridor walls and ceilings within single tenant spaces need not be of fire-resistive construction when the tenant space corridor is provided with system smoke detectors tied to an approved automatic fire alarm. The actuation of any detector shall activate alarms audible in all areas served by the corridor.

1018.6 Corridor Continuity

~~Fire-resistance-rated~~ All *corridors* shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated *corridor* to the *exit* includes travel along unenclosed *exit access stairways* or ramps, the *fire resistance-rating* shall be continuous for the length of the *stairway* or *ramp* and for the length of the connecting *corridor* on the adjacent floor leading to the *exit*.

1026 Exterior Exit Stairways and Ramps

1026.6 Exterior Stairway and Ramp Protection

Exterior exit stairways and ramps shall be separated from the interior of the building as required in Section 1022.7. Openings shall be limited to those necessary for egress from normally occupied spaces.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are no more than two stories above grade plane where a *level of exit discharge* serving such occupancies is the *first story above grade plane*.
2. Separation from the interior of the building is not required where the *exterior stairway or ramp* is served by an *exterior ramp* or balcony that connects two remote *exterior stairways* or other approved *exits* with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be a minimum of 50 percent of the height of the enclosing wall, with the top of the openings no less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the interior of the building is not required for an *exterior stairway or ramp* located in a building or structure that is permitted to have unenclosed exit access stairways in accordance with Section 1009.3.
4. Separation from the open-ended corridors of the building interior of the building is not required for *exterior stairways or ramps* connected to open-ended corridors, provided that Items 4.1 through 4.5 are met:
 - 4.1. The building, including *corridors, stairways or ramps*, shall be equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 4.2. The open-ended *corridors* comply with Section 1018.
 - 4.3. The open-ended *corridors* are connected on each end to an *exterior exit ramp or stairway* complying with Section 1026.
 - 4.4. The exterior walls and openings adjacent to the *exterior exit stairway or ramp* comply with Section 1022.7.
 - 4.5. At any location in an open-ended *corridor* where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m²) or an *exterior stairway or ramp* shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.

1029 Emergency Escape and Rescue

1029.1 General

In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R and I-1 ~~Group R-2~~ occupancies in accordance with Tables 1021.2(1) and 1021.2(2) and Group R-3 occupancies. *Basements* and sleeping rooms below the *fourth story above grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where *basements* contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be

required in adjoining areas of the *basement*. Such openings shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

Exceptions:

1. *Basements* with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
2. *Emergency escape and rescue openings* are not required from *basements* or sleeping rooms that have an *exit* door or *exit access* door that opens directly into a *public way* or to a *yard*, *court* or exterior exit balcony that opens to a *public way*.
3. *Basements* without habitable spaces and having no more than 200 square feet (18.6 m²) in floor area shall not be required to have *emergency escape and rescue openings*.
4. In other than Group R-3 occupancies, buildings equipped throughout with an approved automatic sprinkler system in accordance with Sections 903.3.1.1 or 903.3.1.2.

1030 Maintenance of the Means of Egress

1030.2 Reliability

Required *exit accesses*, *exits* and *exit discharges* shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. ~~when the building area served by the means of egress is occupied.~~ An *exit* or *exit passageway* shall not be used for any purpose that interferes with a *means of egress*.

CHAPTER 11. CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

1103 Fire Safety Requirements for Existing Buildings

1103.3 Elevator Operation

Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall be provided with emergency operation in accordance with ASME A17.3. Provide emergency signage as required by Section 607.2

CHAPTER 23. MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

2304 Dispensing Operations

2304.1 Supervision of Dispensing

The dispensing of fuel at motor fuel-dispensing facilities shall be in accordance with the following: ~~conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be in accordance with Section 2304.3.~~

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or,
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time the qualified attendant of item Number 1 or 2 is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

CHAPTER 24. FLAMMIBLE FINISHES

2401 General

2401.2 Nonapplicability

~~This chapter shall not apply to spray finishing utilizing flammable or combustible liquids which do not sustain combustion, including:~~

- ~~1. Liquids that have no fire point when tested in accordance with ASTM D 92.~~
- ~~2. Liquids with a flashpoint greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.~~

CHAPTER 32. HIGH-PILED COMBUSTIBLE STORAGE

3204 Designation of High-Piled Storage Areas

Any building exceeding 5,000 square feet that has a clear height in excess of 12 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage and shall comply with the provisions of this section. When a specific product cannot be identified, a fire protection system shall be installed as for Class IV commodities, to the maximum pile height.

3206 General Fire Protection and Life Safety Features

Table 3206.2 General Fire Protection and Life Safety Features

[No changes to table, amend footnotes to Table 3206.2]

For SI: 1 foot = 304.8 mm, 1 cubic foot = 0.02832 m³, 1 square foot = 0.0929 m².

- a. When automatic sprinklers are required for reasons other than those in Chapter 32, the portion of the sprinkler system protecting the high-piled storage area shall be designed and installed in accordance with Sections 3207 and 3208.
- b. For aisles, see Section 3206.9.
- c. Piles shall be separated by aisles complying with Section 3206.9.
- d. For storage in excess of the height indicated, special fire protection shall be provided in accordance with Note g when required by the fire code official. See also Chapters 51 and 57 for special limitations for aerosols and flammable and combustible liquids, respectively.
- e. Section 503 shall apply for fire apparatus access.
- f. For storage exceeding 30 feet in height, Option 1 shall be used.
- g. Special fire protection provisions including, but not limited to, fire protection of exposed steel columns; increased sprinkler density; additional in-rack sprinklers, without associated reductions in

ceiling sprinkler density; or additional fire department hose connections shall be provided when required by the fire code official.

h. High-piled storage areas shall not exceed 500,000 square feet. A 2-hour fire wall constructed in accordance with Section 706 the *International Building Code* shall be used to divide high-piled storage exceeding 500,000 square feet in area.

i. Not required when an automatic fire-extinguishing system is designed and installed to protect the high-piled storage area in accordance with Sections 3207 and 3208.

j. ~~Not required when storage~~ Where areas of buildings are equipped are protected by early suppression fast response (ESFR) sprinklers, manual smoke and heat vents or manually activated engineered mechanical smoke exhaust systems shall be required within these areas. ~~systems installed in accordance with NFPA 13.~~

CHAPTER 33. FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

3310 Access for Fire Fighting

3310.1 Required Access

Approved vehicle access for fire fighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

When fire apparatus access roads are required to be installed for any structure or development, they shall be approved prior to the time of which construction has progressed beyond completion of the foundation of any structure.

CHAPTER 50. HAZARDOUS MATERIALS-GENERAL PROVISIONS

5006 Hazardous Materials Route

5006.1 General

Through vehicles carrying materials determined to be hazardous by the United States Department of Transportation are prohibited from transporting such materials over and upon public streets and thoroughfares of the Town of Lakewood Village except upon a designated Hazardous Materials Route.

CHAPTER 56. EXPLOSIVES AND FIREWORKS

5601 General

5601.1 Scope

5601.1.3 Fireworks

The possession, manufacture, storage, sale, handling and use of fireworks are prohibited.

Exceptions:

- ~~1. Only when approved fireworks displays, storage and handling are allowed in Section 5604 and 5608, Storage and handling of fireworks as allowed in Section 5604.~~
- ~~2. The use of fireworks for approved fireworks displays allowed in Section 5608. Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~
- ~~3. The use of fireworks for fireworks displays as allowed in Section 5608.~~
- ~~4. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided such fireworks comply with CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, for consumer fireworks.~~

5601.1.3.1 Fireworks a Public Nuisance.

The presence or use of any firework within the jurisdiction of the Town of Lakewood Village in violation of this ordinance is hereby declared to be a misdemeanor as well as a common and public nuisance.

5601.3 Prohibited Explosives

Storage of explosive material and blasting agents are prohibited within the incorporated limits of the Town of Lakewood Village.

~~Permits shall not be issued or renewed for possession, manufacture, storage, handling, sale or use of the following materials and such materials currently in storage or use shall be disposed of in an approved manner.~~

- ~~1. Liquid nitroglycerin.~~
- ~~2. Dynamite containing more than 60 percent liquid explosive ingredient.~~
- ~~3. Dynamite having an unsatisfactory absorbent or one that permits leakage of a liquid explosive ingredient under any conditions liable to exist during storage.~~
- ~~4. Nitrocellulose in a dry and uncompressed condition in a quantity greater than 10 pounds (4.54 kg) of net weight in one package.~~
- ~~5. Fulminate of mercury in a dry condition and fulminate of all other metals in any condition except as a component of manufactured articles not hereinafter forbidden.~~
- ~~6. Explosive compositions that ignite spontaneously or undergo marked decomposition, rendering the products of their use more hazardous, when subjected for 48 consecutive hours or less to a temperature of 167°F (75°C).~~

- ~~7. New explosive materials until approved by DOTn, except that permits are allowed to be issued to educational, governmental or industrial laboratories for instructional or research purposes.~~
- ~~8. Explosive materials condemned by DOTn.~~
- ~~9. Explosive materials containing an ammonium salt and a chlorate.~~
- ~~10. Explosives not packed or marked as required by DOTn 49 CFR Parts 100-185.~~

~~Exception: Gelatin dynamite.~~

CHAPTER 57. FLAMMABLE AND COMBUSTIBLE LIQUIDS

5703 General Requirements

5703.6 Piping System

Piping systems, and their component parts, for flammable and *combustible liquids* shall be in accordance with Sections 5703.6.1 through 5703.6.11. An approved method of secondary containment shall be provided for underground tank and piping systems.

5704 Storage

5704.2 Tank Storage

5704.2.9 Above Ground Tanks

5704.2.9.5 Above-Ground Tanks Inside of Buildings

Above-ground tanks inside of buildings shall comply with Sections 5704.2.9.5.1 through and 5704.2.9.5.3. ~~5704.2.9.5.2.~~

5704.2.9.5.3 Combustible Liquid Storage Tanks Inside of Buildings

The maximum aggregate allowable quantity limit shall be 3,000 gallons (11 356 L) of Class II or III combustible liquid for storage in protected aboveground tanks complying with Section 5704.2.9.7 when all of the following conditions are met:

1. The entire 3,000 gallon (11 356 L) quantity shall be stored in protected above-ground tanks;
2. The 3,000 gallon (11 356 L) capacity shall be permitted to be stored in a single tank or multiple smaller tanks;
3. The tanks shall be located in a room protected by an automatic sprinkler system complying with Section 903.3.1.1; and
4. Tanks shall be connected to fuel-burning equipment, including generators, utilizing an approved closed piping system.

The quantity of combustible liquid stored in tanks complying with this section shall not be counted towards the maximum allowable quantity set forth in Table 5003.1.1(1), and such tanks shall not be required to be located in a control area. Such tanks shall not be located more than two stories below grade.

5704.2.11 Underground Tanks

5704.2.11.5 Leak Prevention

Leak prevention for underground tanks shall comply with Sections 5704.2.11.5.1 through and 5704.2.11.5.3. ~~5704.2.11.5.2.~~ An approved method of secondary containment shall be provide for underground tank and piping systems.

5704.2.11.5.3 Observation Wells

Approved sampling tubes of a minimum 6 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

5706 Special Operations

5706.5 Bulk Transfer and Process Transfer Operations

5706.5.4 Dispensing from Tank Vehicles and Tank Cars

5706.5.4.5 Commercial, Industrial, Governmental or Manufacturing

Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with Sections 5706.5.4.5.1 through 5706.5.4.5.3.

~~Dispensing of Class II and III motor vehicle fuel from tank vehicles into the fuel tanks of motor vehicles located at commercial, industrial, governmental or manufacturing establishments is allowed where permitted, provided such dispensing operations are conducted in accordance with the following:~~

- ~~1. Dispensing shall occur only at sites that have been issued a permit to conduct mobile fueling.~~
- ~~2. The *owner* of a mobile fueling operation shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill and carry out appropriate mitigation measures, and describes the process to dispose properly of contaminated materials.~~
- ~~3. A detailed site plan shall be submitted with each application for a permit. The site plan shall indicate: all buildings, structures and appurtenances on site and their use or function; all uses adjacent to the lot lines of the site; the locations of all storm drain openings, adjacent waterways or wetlands; information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and the scale of the site plan.~~

- ~~Provisions shall be made to prevent liquids spilled during dispensing operations from flowing into buildings or off-site. Acceptable methods include, but shall not be limited to, grading driveways, raising doorsills or other *approved* means.~~
- ~~4. The *fire code official* is allowed to impose limits on the times and days during which mobile fueling operations is allowed to take place, and specific locations on a site where fueling is permitted.~~
 - ~~5. Mobile fueling operations shall be conducted in areas not accessible to the public or shall be limited to times when the public is not present.~~
 - ~~6. Mobile fueling shall not take place within 15 feet (4572 mm) of buildings, property lines, combustible storage or storm drains.~~

Exceptions:

- ~~1. The distance to storm drains shall not apply where an *approved* storm drain cover or an *approved* equivalent that will prevent any fuel from reaching the drain is in place prior to fueling or a fueling hose being placed within 15 feet (4572 mm) of the drain. Where placement of a storm drain cover will cause the accumulation of excessive water or difficulty in conducting the fueling, such cover shall not be used and the fueling shall not take place within 15 feet (4572 mm) of a drain.~~
- ~~2. The distance to storm drains shall not apply for drains that direct influent to *approved* oil interceptors.~~
- ~~7. The tank vehicle shall comply with the requirements of NFPA 385 and local, state and federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.~~
- ~~8. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the tank vehicle or the point of fueling shall be prominently posted on three sides of the vehicle including the back and both sides.~~
- ~~9. A portable fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.~~
- ~~10. The dispensing nozzles and hoses shall be of an *approved and listed* type.~~
- ~~11. The dispensing hose shall not be extended from the reel more than 100 feet (30 480 mm) in length.~~
- ~~12. Absorbent materials, nonwater absorbent pads, a 10-foot long (3048 mm) containment boom, an *approved* container with lid and a nonmetallic shovel shall be provided to mitigate a minimum 5-gallon (19 L) fuel spill.~~
- ~~13. Tank vehicles shall be equipped with a "fuel limit" switch such as a count-back switch, to limit the amount of a single fueling operation to a maximum of 500 gallons (1893 L) before resetting the limit switch.~~

~~**Exception:** Tank vehicles where the operator carries and can utilize a remote emergency shutoff device which, when activated, immediately causes flow of fuel from the tank vehicle to cease.~~

- ~~14. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak or spill. Training records shall be maintained by the dispensing company and shall be made available to the *fire code official* upon request.~~
- ~~15. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.~~
- ~~16. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.~~
- ~~17. Fuel dispensing shall be prohibited within 25 feet (7620 mm) of any source of ignition.~~
- ~~18. The engines of vehicles being fueled shall be shut off during dispensing operations.~~
- ~~19. Nighttime fueling operations shall only take place in adequately lighted areas.~~
- ~~20. The tank vehicle shall be positioned with respect to vehicles being fueled to prevent traffic from driving over the delivery hose.~~
- ~~21. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.~~
- ~~22. Motor vehicle fuel tanks shall not be topped off.~~
- ~~23. The dispensing hose shall be properly placed on an *approved* reel or in an *approved* compartment prior to moving the tank vehicle.~~
- ~~24. The *fire code official* and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.~~
- ~~25. Operators shall place a drip pan or an absorbent pillow under each fuel fill opening prior to and during dispensing operations. Drip pans shall be liquid tight. The pan or absorbent pillow shall have a capacity of not less than 3 gallons (11.36 L). Spills retained in the drip pan or absorbent pillow need not be reported. Operators, when fueling, shall have on their person an absorbent pad capable of capturing diesel fuel overfills. Except during fueling, the nozzle shall face upward and an absorbent pad shall be kept under the nozzle to catch drips. Contaminated absorbent pads or pillows shall be disposed of regularly in accordance with local, state and federal requirements.~~

5706.5.4.5.1 Site Requirements

1. Dispensing may occur at sites that have been permitted to conduct mobile fueling.
2. A detailed site plan shall be submitted with each application for a permit. The site plan must indicate:
 - a. all buildings, structures, and appurtenances on site and their use or function;
 - b. all uses adjacent to the property lines of the site;
 - c. the locations of all storm drain openings, adjacent waterways or wetlands;
 - d. information regarding slope, natural drainage, curbing, impounding and how a spill will be retained upon the site property; and,
 - e. The scale of the site plan.
3. The Fire Code Official is authorized to impose limits upon: the times and/or days during which mobile fueling operations are allowed to take place and specific locations on a site where fueling is permitted.
4. Mobile fueling operations shall be conducted in areas not generally accessible to the public.

5. Mobile fueling shall not take place within 15 feet (4.572 m) of buildings, property lines, or combustible storage.

5706.5.4.5.2 Refueling Operator Requirements

1. The owner of a mobile fueling operations shall provide to the jurisdiction a written response plan which demonstrates readiness to respond to a fuel spill, carry out appropriate mitigation measures, and to indicate its process to properly dispose of contaminated materials when circumstances require.
2. The tank vehicle shall comply with the requirements of NFPA 385 and Local, State and Federal requirements. The tank vehicle's specific functions shall include that of supplying fuel to motor vehicle fuel tanks. The vehicle and all its equipment shall be maintained in good repair.
3. Signs prohibiting smoking or open flames within 25 feet (7.62 m) of the tank vehicle or the point of fueling shall be prominently posted on 3 sides of the vehicle including the back and both sides.
4. A fire extinguisher with a minimum rating of 40:BC shall be provided on the vehicle with signage clearly indicating its location.
5. The dispensing nozzles and hoses shall be of an approved and listed type.
6. The dispensing hose shall not be extended from the reel more than 100 feet (30.48m) in length.
7. Absorbent materials, non-water absorbent pads, a 10 foot (3.048 m) long containment boom, an approved container with lid, and a non-metallic shovel shall be provided to mitigate a minimum 5-gallon fuel spill.
8. Tanker vehicles shall be equipped with a fuel limit switch such as a count-back switch, limiting the amount of a single fueling operation to a maximum of 500 gallons (1893 L) between resetting of the limit switch. Exception: Tankers utilizing remote emergency shut-off device capability where the operator constantly carries the shut-off device which, when activated, immediately causes flow of fuel from the tanker to cease.
9. Persons responsible for dispensing operations shall be trained in the appropriate mitigating actions in the event of a fire, leak, or spill. Training records shall be maintained by the dispensing company and shall be made available to the fire code official upon request.
10. Operators of tank vehicles used for mobile fueling operations shall have in their possession at all times an emergency communications device to notify the proper authorities in the event of an emergency.

5706.5.4.5.3 Operations Requirements

1. The tank vehicle dispensing equipment shall be constantly attended and operated only by designated personnel who are trained to handle and dispense motor fuels.
2. Prior to beginning dispensing operations, precautions shall be taken to assure ignition sources are not present.
3. The engines of vehicles being fueled shall be shut off during dispensing operations.
4. Night time fueling operations shall only take place in adequately lighted areas.

5. The tank vehicle shall be positioned with respect to vehicles being fueled so as to preclude traffic from driving over the delivery hose and between the tank vehicle and the motor vehicle being fueled.
6. During fueling operations, tank vehicle brakes shall be set, chock blocks shall be in place and warning lights shall be in operation.
7. Motor vehicle fuel tanks shall not be topped off.
8. The dispensing hose shall be properly placed on an approved reel or in an approved compartment prior to moving the tank vehicle.
9. The Code Official and other appropriate authorities shall be notified when a reportable spill or unauthorized discharge occurs.

CHAPTER 61. LIQUIFIED PETROLEUM GASES

6103 Installation of Equipment

6103.2 Use of LP-Gas Containers in Buildings

6103.2.1 Portable Containers

6103.2.1.8 Jewelry Repair, Dental Labs and Similar Occupancies

Where natural gas service is not available and where approved by the fire code official, portable LP-Gas containers are allowed to be used to supply approved torch assemblies or similar appliances. Such containers shall not exceed 20-pound (9.0 kg) water capacity. Aggregate capacity shall not exceed 60-pound (27.2 kg) water capacity. Each device shall be separated from other containers by a distance of not less than 20 feet.

6104 Location of LP-Gas Containers

6104.2 Maximum Capacity within Established Limits

Within the limits established by law restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L) (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi).

Exception:

1. In particular installations, this capacity limit shall be determined by the *fire code official*, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP-gas containers, degree of fire protection to be provided and capabilities of the local fire department.
2. Except as permitted in 308 and 6104.3.2, LP-gas containers are not permitted in residential areas.

6104.3 Container Location**6104.3.2 Spas, Pool Heaters and other Listed Devices**

Where natural gas service is not available and where approved by the fire code official, an LP-Gas container is allowed to be used to supply spa and pool heaters or other listed devices. Such container shall not exceed 250-gallon water capacity per lot. See Table 6104.3 for location of containers.

Exception:

Lots where LP can be off loaded wholly on the property where the tank is located may install 500 gallon above ground or 1,000 gallon underground approved containers.



End of Exhibit A

ADOPTION AND SUMMARY OF AMENDMENTS

Ordinance Number	Date	Summary
16-15	October 13, 2016	• Removed ETJ
15-16	December 10, 2015	• Amended to match Little Elm adopted Fire Code.
11-06 98-04A	May 12, 2011	REPEALED